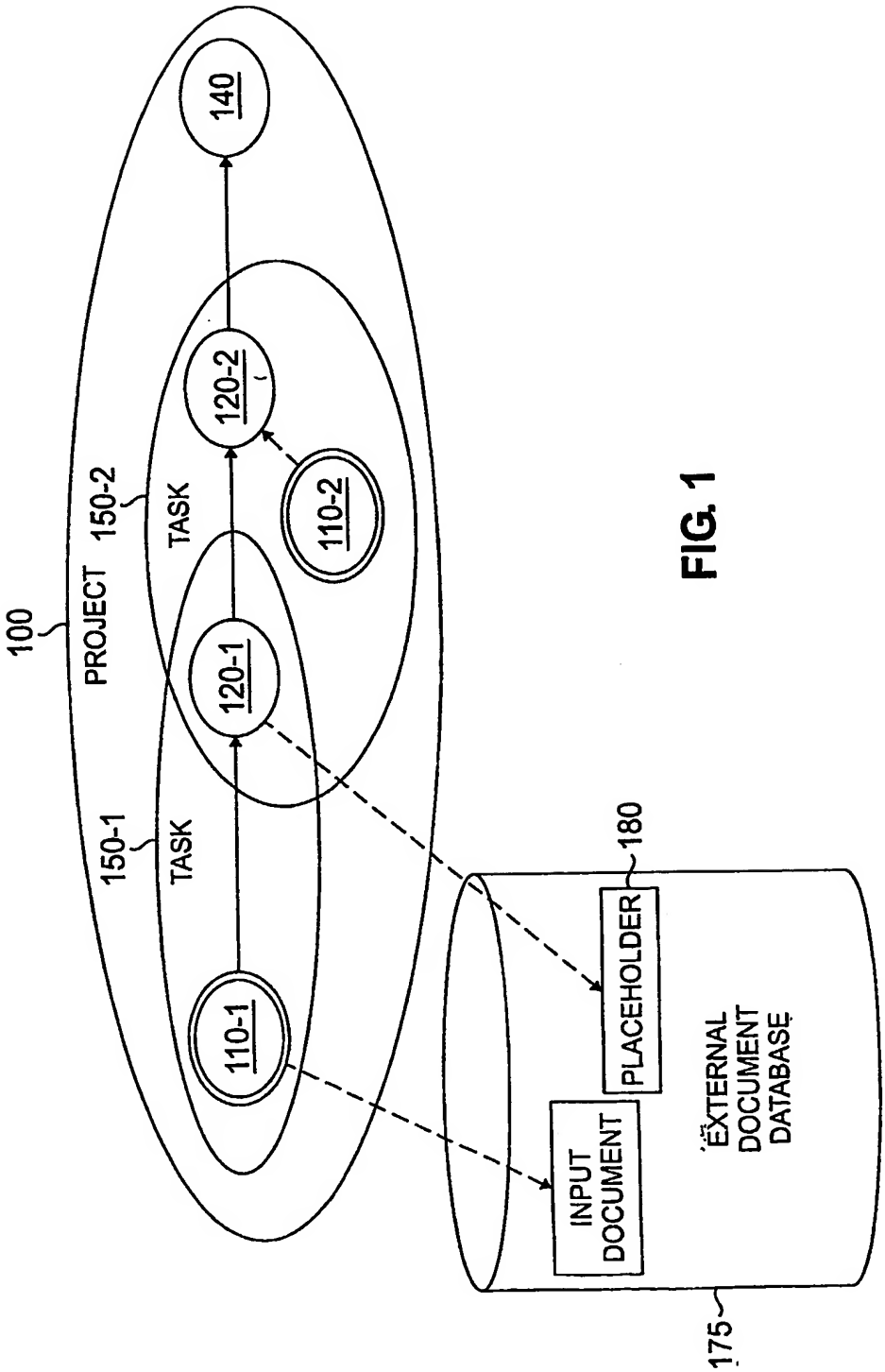
100
PROJECT
150-1
TASK
150-2
TASK
140
120-2
120-1
110-2
110-1
180
PLACEHOLDER
INPUT DOCUMENT
EXTERNAL DOCUMENT DATABASE
175

FIG. 1

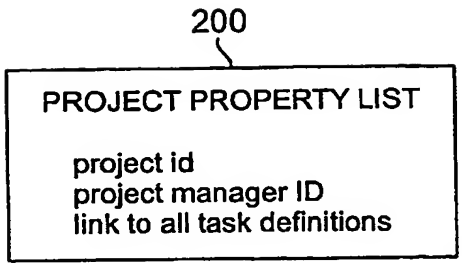
200
PROJECT PROPERTY LIST
project id
project manager ID
link to all task definitions

FIG. 2

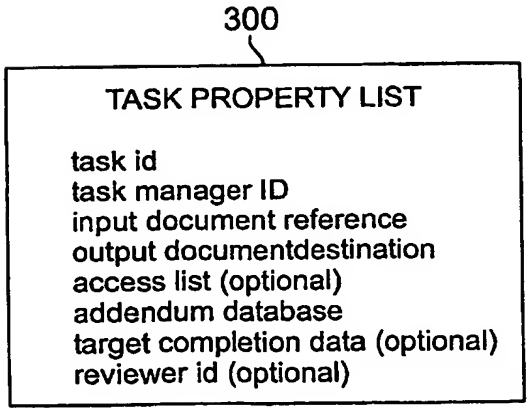
300
TASK PROPERTY LIST
task id
task manager ID
input document reference
output documentdestination
access list (optional)
addendum database
target completion data (optional)
reviewer id (optional)

FIG. 3

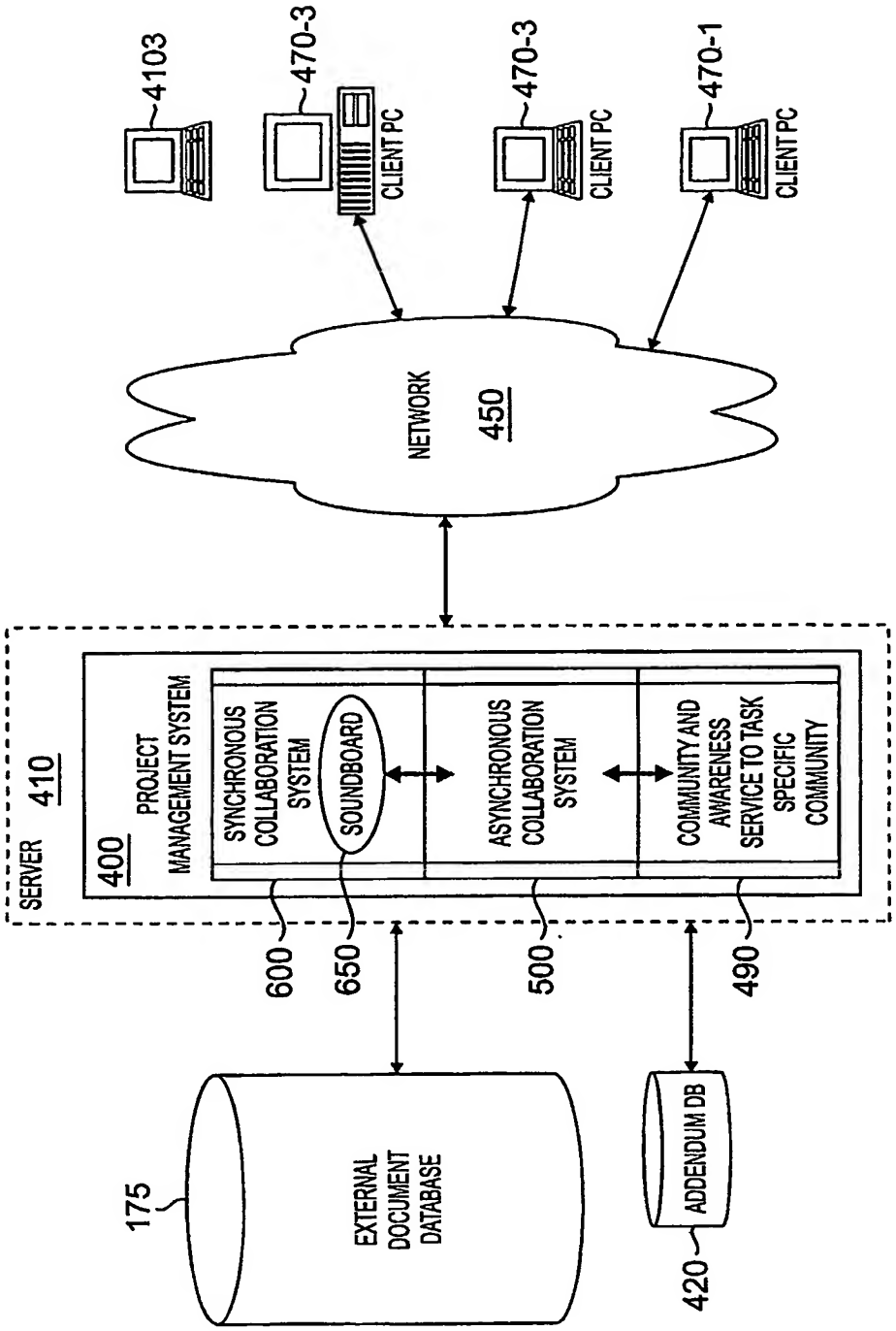
4103
470-3
CLIENT PC
470-3
CLIENT PC
470-1
CLIENT PC
NETWORK
450
SERVER
410
400
PROJECT MANAGEMENT SYSTEM
SYNCHRONOUS COLLABORATION SYSTEM
SOUNDBOARD
ASYNCHRONOUS COLLABORATION SYSTEM
COMMUNITY AND AWARENESS SERVICE TO TASK SPECIFIC COMMUNITY
600
650
500
490
175
EXTERNAL DOCUMENT DATABASE
ADDENDUM DB
420

FIG. 4

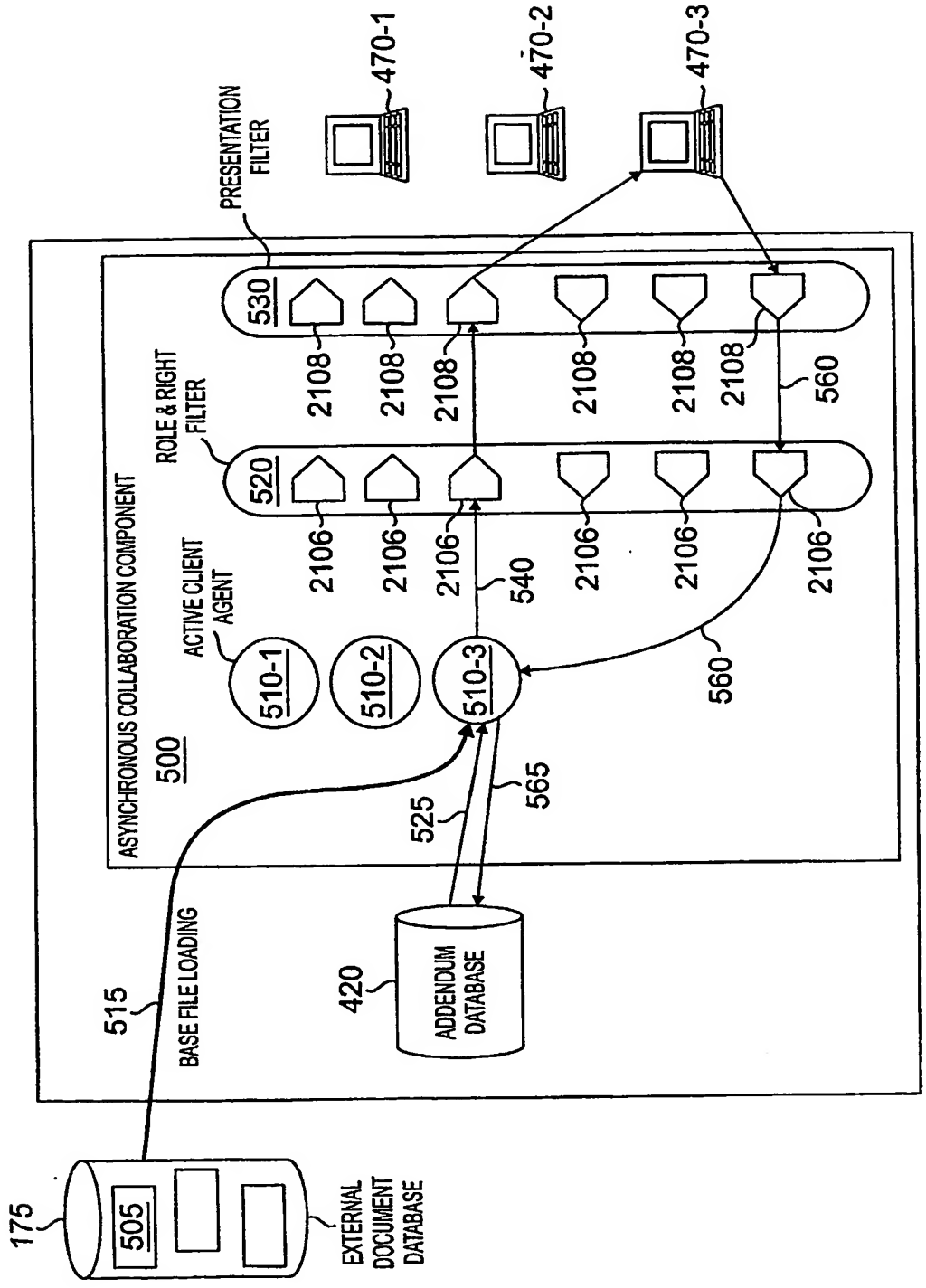
470-1
470-2
470-3
PRESENTATION FILTER
530
2108
ROLE & RIGHT FILTER
520
2106
560
ACTIVE CLIENT AGENT
510-1
510-2
510-3
540
ASYNCHRONOUS COLLABORATION COMPONENT
500
525
565
515
BASE FILE LOADING
420
ADDENDUM DATABASE
175
505
EXTERNAL DOCUMENT DATABASE

FIG. 5

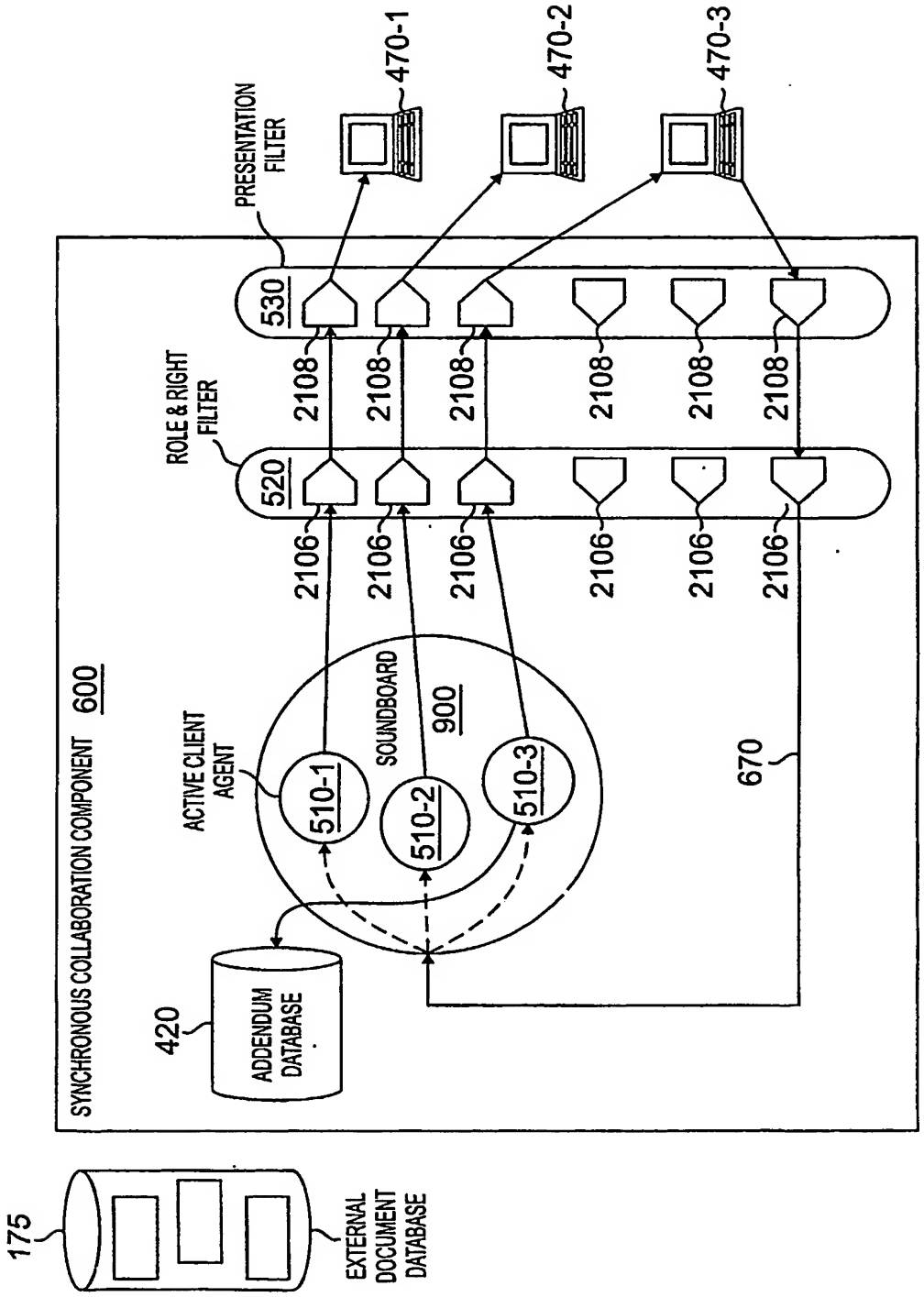
470-1
470-2
470-3
PRESENTATION FILTER
530
ROLE & RIGHT FILTER
520
2108
2106
SYNCHRONOUS COLLABORATION COMPONENT 600
ACTIVE CLIENT AGENT
SOUNDBOARD 900
510-1
510-2
510-3
670
420
ADDENDUM DATABASE
175
EXTERNAL DOCUMENT DATABASE

FIG. 6

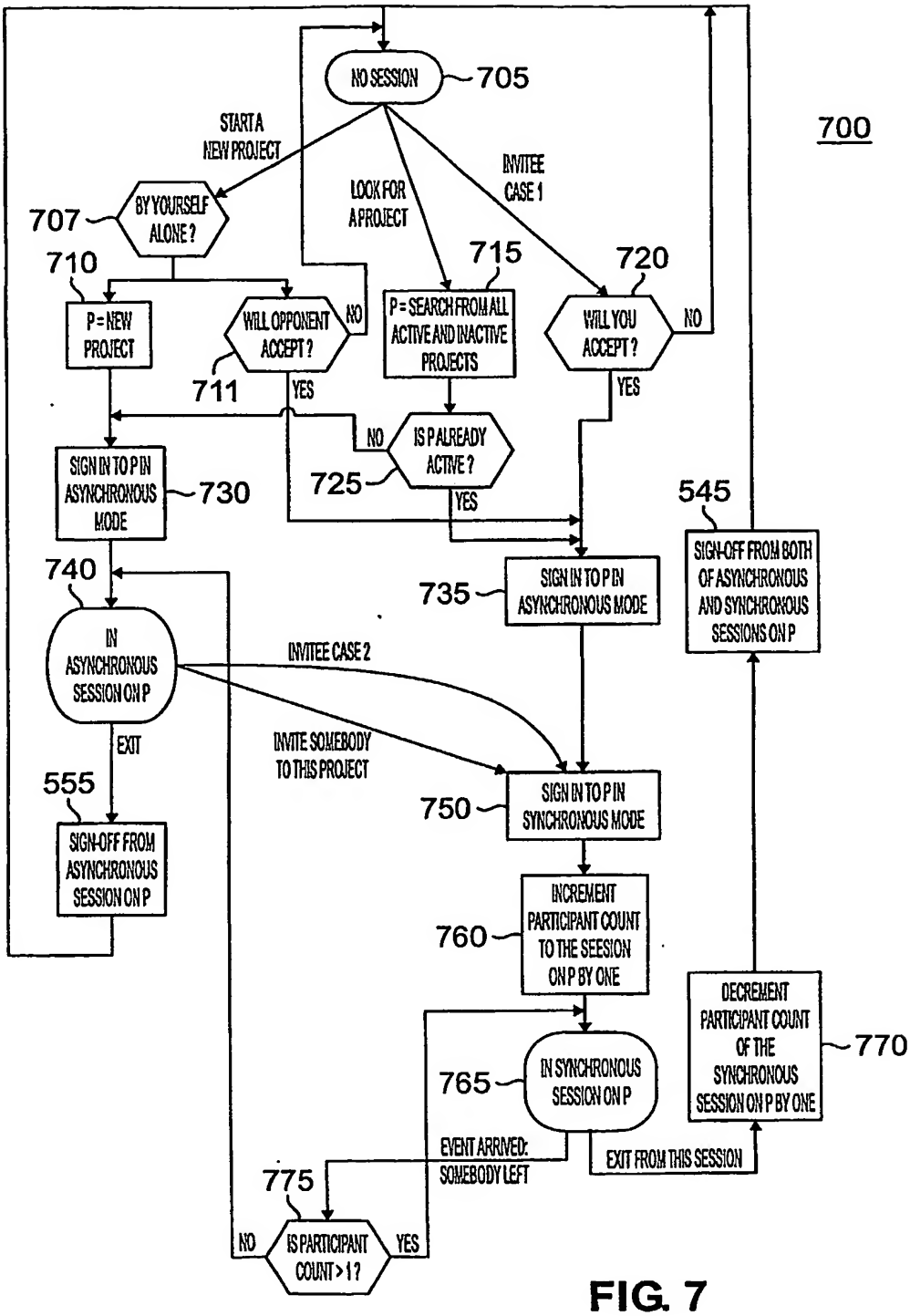
NO SESSION
705
700
START A NEW PROJECT
LOOK FOR A PROJECT
INVITEE CASE 1
707
BY YOURSELF ALONE?
710
P = NEW PROJECT
WILL OPPONENT ACCEPT?
NO
711
YES
715
P = SEARCH FROM ALL ACTIVE AND INACTIVE PROJECTS
720
WILL YOU ACCEPT?
NO
YES
NO
IS P ALREADY ACTIVE?
725
YES
SIGN IN TO P IN ASYNCHRONOUS MODE
730
545
SIGN-OFF FROM BOTH OF ASYNCHRONOUS AND SYNCHRONOUS SESSIONS ON P
740
735
SIGN IN TO P IN ASYNCHRONOUS MODE
IN ASYNCHRONOUS SESSION ON P
INVITEE CASE 2
EXIT
INVITE SOMEBODY TO THIS PROJECT
555
750
SIGN IN TO P IN SYNCHRONOUS MODE
SIGN-OFF FROM ASYNCHRONOUS SESSION ON P
INCREMENT PARTICIPANT COUNT TO THE SEESION ON P BY ONE
760
DECREMENT PARTICIPANT COUNT OF THE SYNCHRONOUS SESSION ON P BY ONE
770
765
IN SYNCHRONOUS SESSION ON P
EVENT ARRIVED: SOMEBODY LEFT
EXIT FROM THIS SESSION
775
NO
IS PARTICIPANT COUNT > 1?
YES

FIG. 7

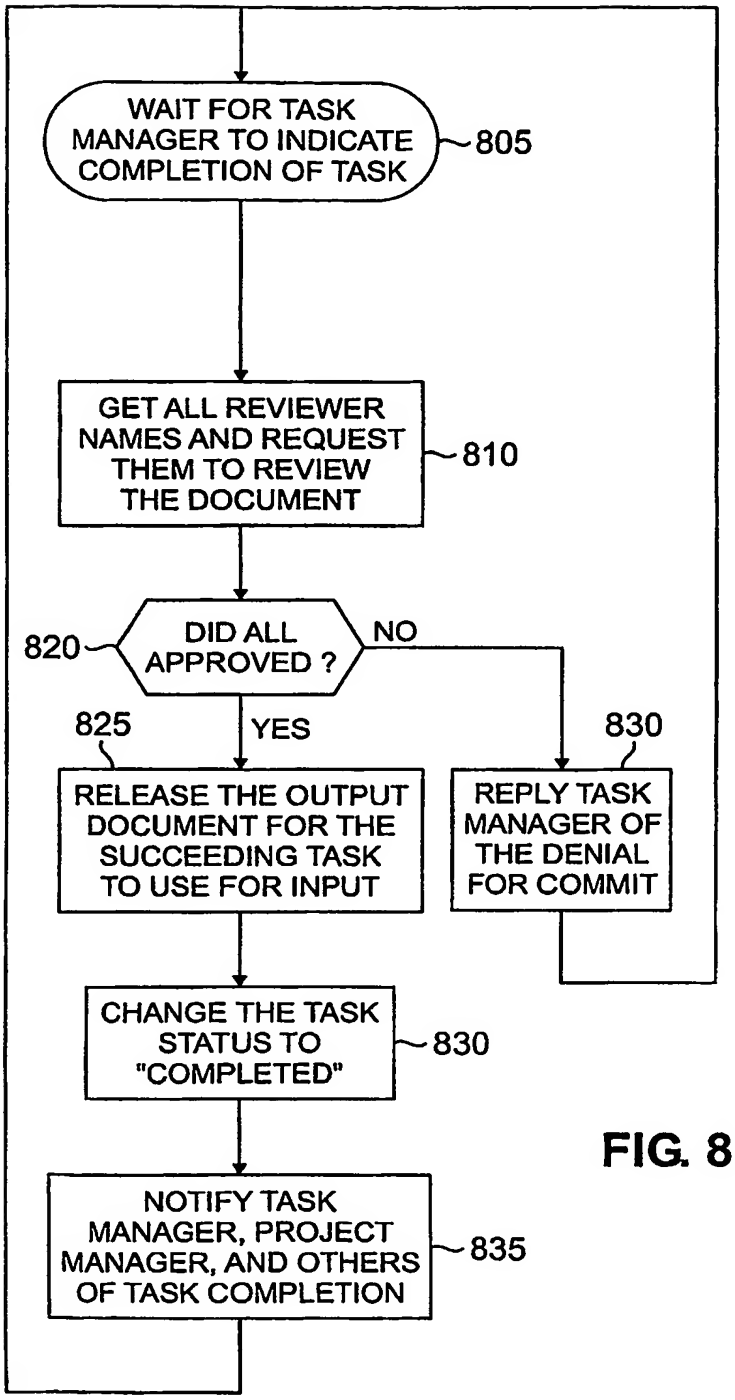
WAIT FOR TASK MANAGER TO INDICATE COMPLETION OF TASK
805
GET ALL REVIEWER NAMES AND REQUEST THEM TO REVIEW THE DOCUMENT
810
820
DID ALL APPROVED ?
NO
825
YES
830
RELEASE THE OUTPUT DOCUMENT FOR THE SUCCEEDING TASK TO USE FOR INPUT
REPLY TASK MANAGER OF THE DENIAL FOR COMMIT
CHANGE THE TASK STATUS TO "COMPLETED"
830
NOTIFY TASK MANAGER, PROJECT MANAGER, AND OTHERS OF TASK COMPLETION
835

FIG. 8

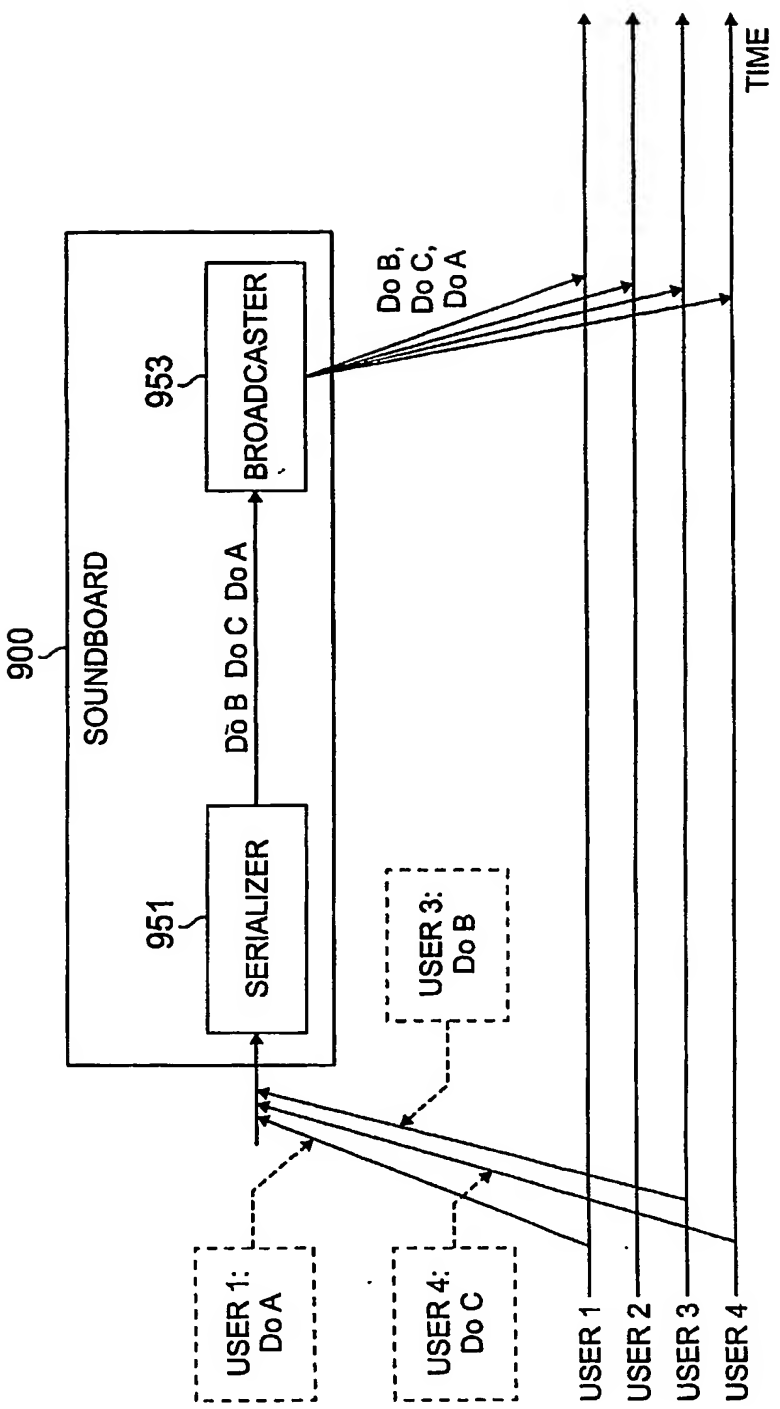
900
SOUNDBOARD
951
SERIALIZER
953
BROADCASTER
Do B Do C Do A
Do B,
Do C,
Do A
USER 1:
Do A
USER 3:
Do B
USER 4:
Do C
USER 1
USER 2
USER 3
USER 4
TIME

FIG. 9

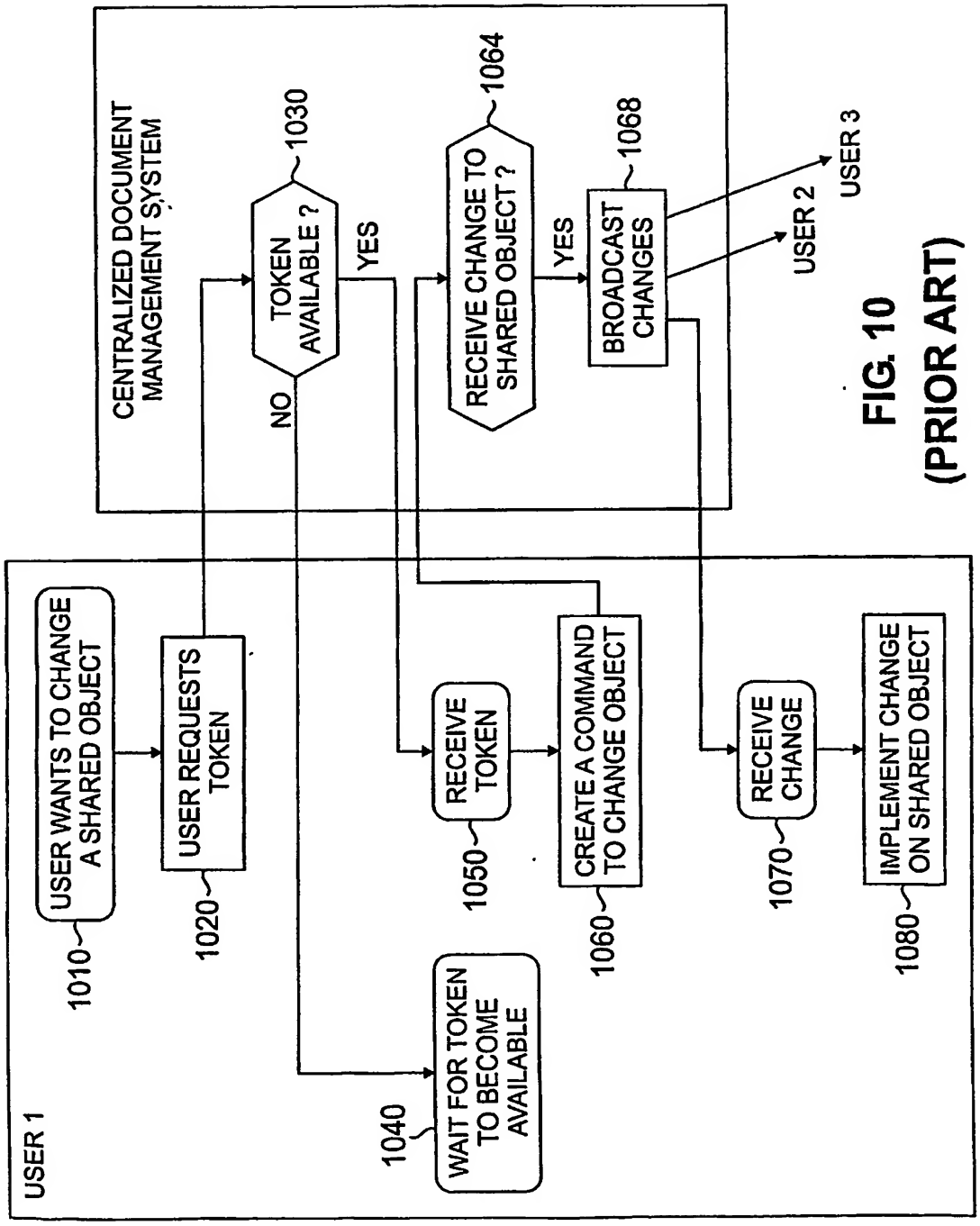

FIG. 10
(PRIOR ART)

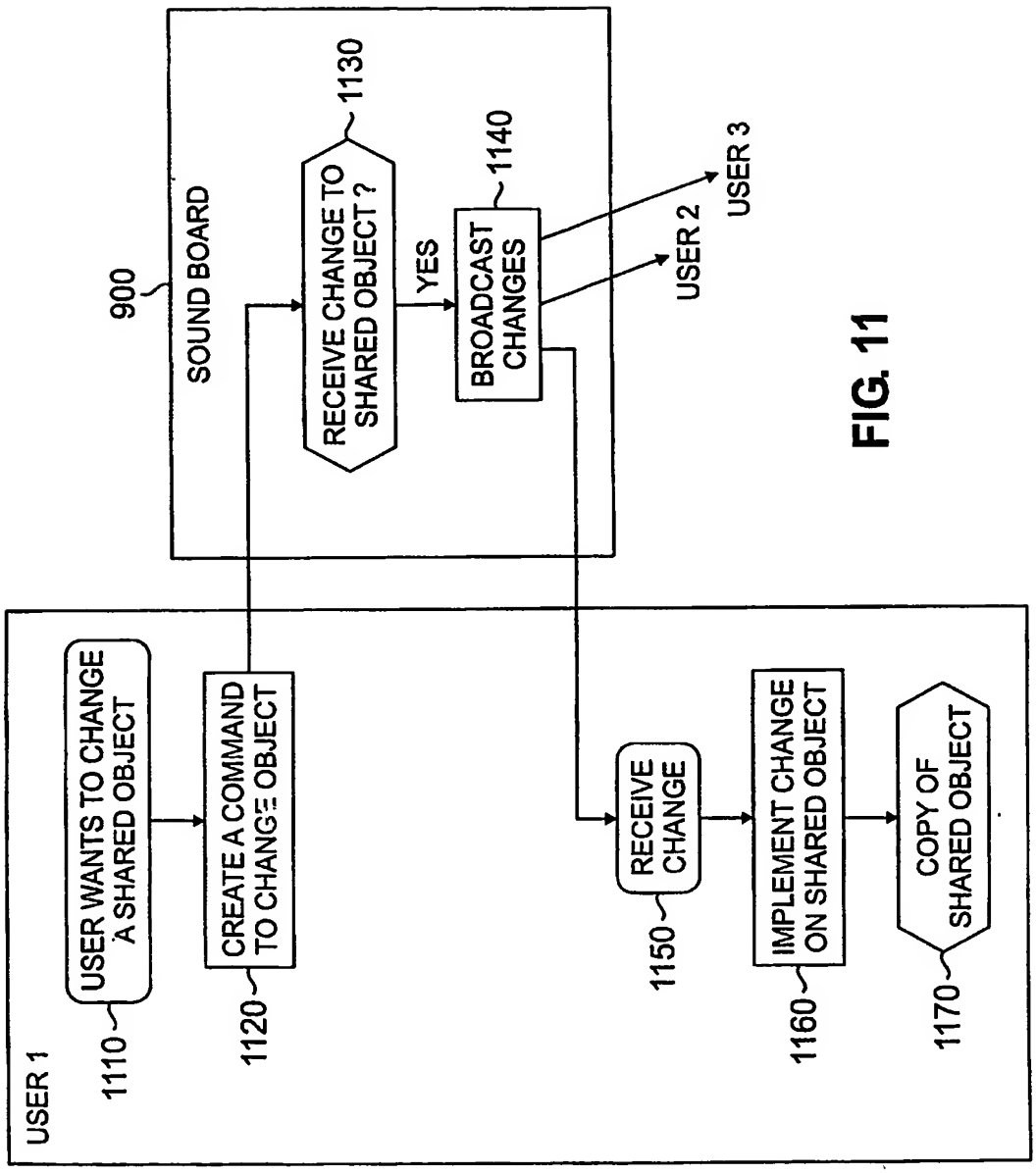
900
SOUND BOARD
1130
RECEIVE CHANGE TO SHARED OBJECT ?
YES
1140
BROADCAST CHANGES
USER 2
USER 3
USER 1
1110
USER WANTS TO CHANGE A SHARED OBJECT
1120
CREATE A COMMAND TO CHANGE OBJECT
1150
RECEIVE CHANGE
1160
IMPLEMENT CHANGE ON SHARED OBJECT
1170
COPY OF SHARED OBJECT

FIG. 11

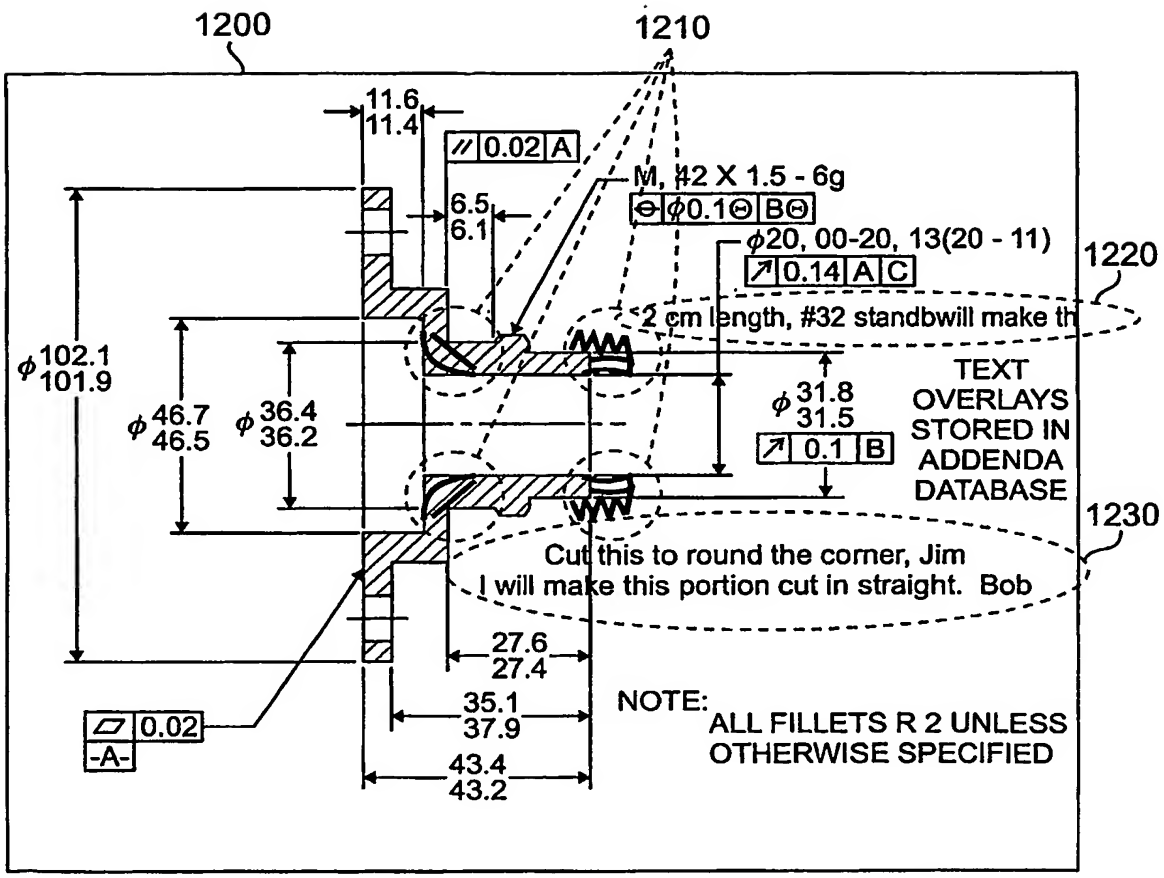
1200
1210
11.6
11.4
// 0.02 A
M, #2 X 1.5 - 6g
⊖ ϕ0.1⊖ B⊖
6.5
6.1
ϕ20, 00-20, 13(20 - 11)
↗ 0.14 A C
1220
2 cm length, #32 standbwill make th
ϕ102.1
101.9
ϕ46.7
46.5
ϕ36.4
36.2
ϕ31.8
31.5
↗ 0.1 B
TEXT OVERLAYS STORED IN ADDENDA DATABASE
1230
Cut this to round the corner, Jim
I will make this portion cut in straight. Bob
27.6
27.4
35.1
37.9
43.4
43.2
▱ 0.02
-A-
NOTE:
ALL FILLETS R 2 UNLESS OTHERWISE SPECIFIED

FIG. 12

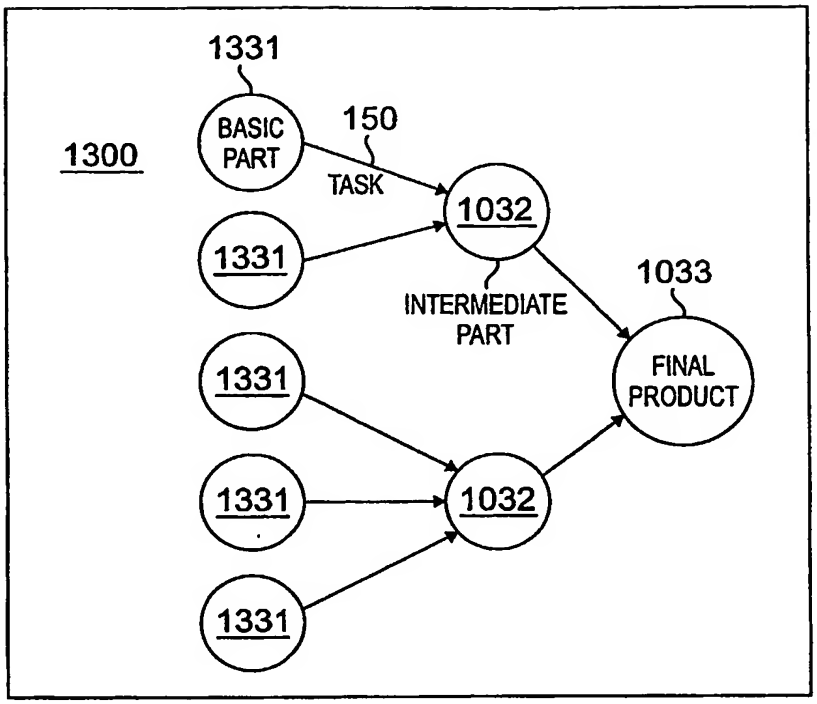
1331
BASIC PART
150
TASK
1300
1032
1331
1033
INTERMEDIATE PART
FINAL PRODUCT
1331
1331
1032
1331

FIG. 13

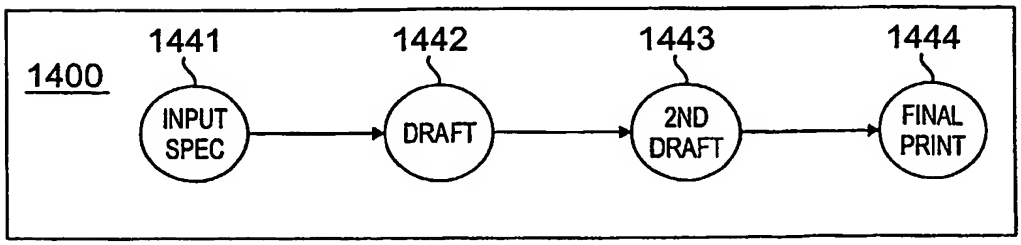
1400
1441
INPUT SPEC
1442
DRAFT
1443
2ND DRAFT
1444
FINAL PRINT

FIG. 14

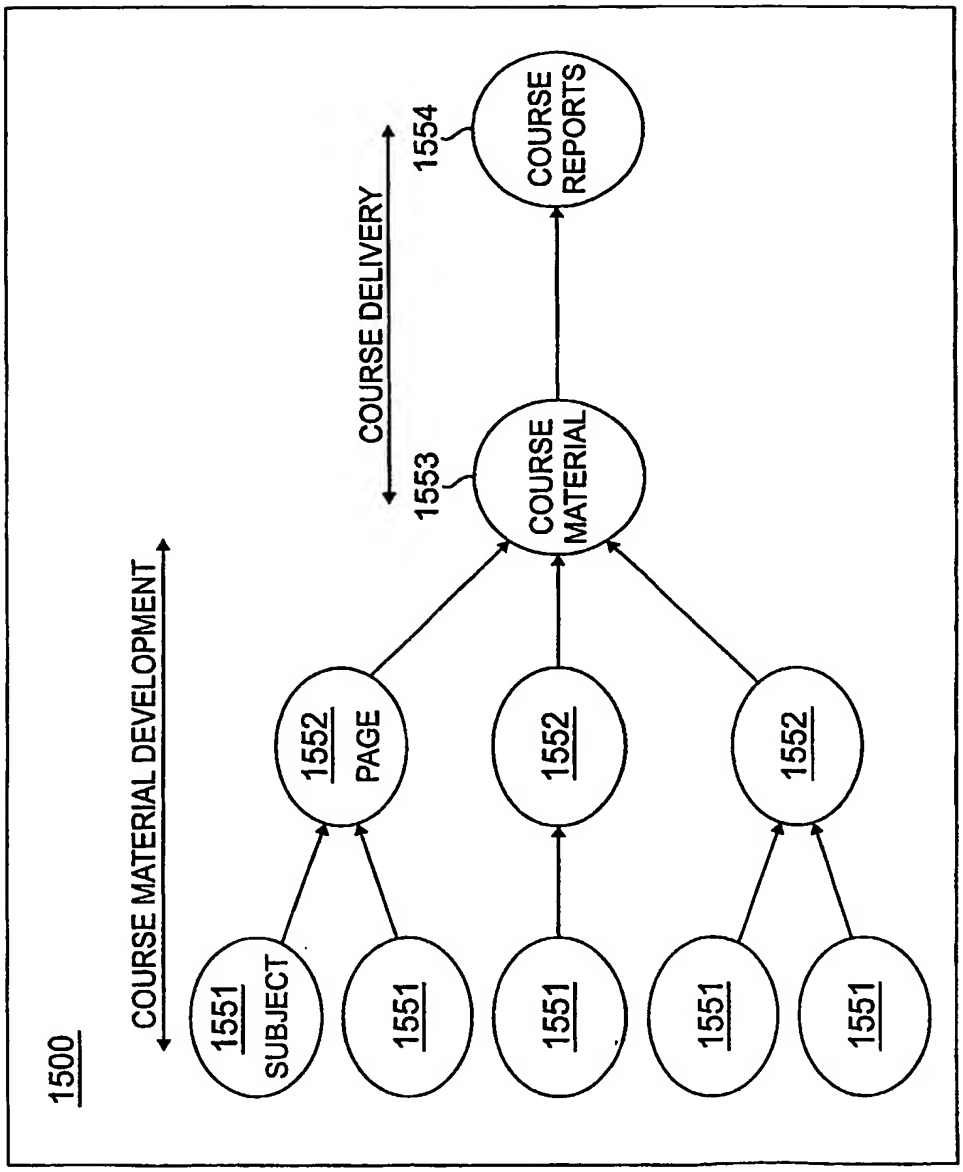
1500
COURSE MATERIAL DEVELOPMENT
COURSE DELIVERY
1551 SUBJECT
1551
1552 PAGE
1551
1552
1551
1552
1553 COURSE MATERIAL
1554 COURSE REPORTS

FIG. 15